THE POPULARITY OF PAYDAY LENDING: POLITICS, RELIGION, RACE OR POVERTY?

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ABSTRACT

Graves and Peterson (2008), using state-level data, argue that states with larger Christian Evangelical populations make greater use of payday lending. Using the same data, this paper finds that the number of Christian Evangelicals in a state predicts whether a state allows payday lending; however, payday lending *use* is better explained by race, poverty, and surprisingly, political beliefs. The paper also finds that states that ban payday lending would not necessarily be higher-than-average users of payday lending. ***JEL classifications:*** G21, D14

INTRODUCTION

Payday lending – the term for very short-term unsecured loans to individuals - has become increasingly popular in recent years (Stegman 2007, Graves and Peterson 2008). Payday lending is controversial primarily because of the interest rates charged. In a typical payday loan, the borrower writes a postdated check to the lender, with a date several weeks into the future. In exchange, they receive cash equal to the value of the check less fees charged. The loans tend to be relatively small and are unsecured, with limited or no evaluation of creditworthiness. Fees are usually expressed as a dollar amount or as a percentage of the value of the loan. These percentages tend to be small; however, because the loans are very short term, when calculated as an annual rate, interest rates can exceed 300% (Graves and Peterson, 2008). Critics of payday lending argue that individuals can become serial borrowers and so face annual interest rates far in excess of state usury limits. Defenders of payday lending say that the loans are meant to be short term, involve significant risk for the lender, and unlike with larger loans, fixed transactions cost make up a significant potion of the costs of the loan. Because of the political controversy around payday lending, it is important to determine the factors that affect its use

An interesting take on this was given by Graves and Peterson (2008). They argue that southern, conservative states with large Christian Evangelical populations have a more tolerant attitude towards payday lending. They construct a national database of payday lenders and show that the per capita number of payday lenders in a state is correlated with the number of Christian Evangelicals. This is a surprising result given that there is not an obvious connection between religious beliefs and the use of specific financial intermediaries. Indeed, Graves and Peterson (2008) argue that given historical attitudes towards usury, Christian evangelicals should be less positive towards the high-interest-rate payday lending industry. We can see how the

Graves and Peterson (2008) result is suggested by the data by looking at the 10 states with the greatest number of payday lenders (Table 1). As can be seen, states in the South, particularly in the area known as the "Bible Belt", make up a large portion of this group. Of course, the states have a number of factors in common and it may be that Christian Evangelicals may be proxying for these other factors.

TABLE 1.
10 STATES WITH THE GREATEST NUMBER OF PAYDAY LENDERS

State	Payday Lenders per 10,000 People[a]
Mississippi	3.83
South Carolina	2.85
Alabama	2.71
Tennessee	2.57
Missouri	2.32
Louisiana	2.23
Nevada	2.23
Kentucky	1.98
Utah	1.77
South Dakota	1.7

[a]Source: Graves and Peterson (2008)

This paper uses the data of Graves and Peterson (2008) to determine which factors affect the popularity of payday lending. It finds that several factors are important. Conservative states (as measured by the percent of the population voting for Bush in the 2004 Presidential Election) as well as states with large Christian Evangelical populations are more likely to allow payday lending. On the other hand, rural states, or states with large African American populations are less likely to allow it, after controlling for other factors.

For states that allow payday lending, a number of factors influence its popularity. Not surprisingly, high rates of poverty have a large effect on payday lending use. States with large populations of African American population are also greater users of payday lending. Interestingly, states that voted more for Bush were greater users of payday lending, but the number of Christian Evangelicals did not have a significant effect. This suggests that the empirical results of Graves and Peterson (2008) may have been driven by the number of Christian Evangelicals in a state proxying for other factors.

The next section of the paper reviews the literature on the economics of payday lending use. In the subsequent section, the data used in this paper are presented. The paper then addresses empirically three questions: Why states ban payday lending, what factors affect the number of payday lenders in a state, and whether payday lending would be popular in the states that have banned it.

LITERATURE REVIEW

Stegman (2007) provides a review of the economic literature of payday lending. Given the controversy over interest rates, and the rapid growth in the popularity of payday lending, most of the literature has focused on regulatory policies

towards payday lending. However, despite the importance of the issue, there is little empirical work, likely because, in the words of Stegman (2007, pg. 71). "national data on the payday loan industry is not readily available".

In the absence of nationwide data, the empirical work has focused on the regional level. Several papers have looked at the payday lending decision in a particular state. These papers provide some guide as to which variables might be important at the national level.

Burkey and Simkins (2004) look at the factors that affect the location decisions of payday lenders using zip-code-tabulation-area data in North Carolina. They find that more payday lenders locate in high population zip codes and urban zip codes. They also find that payday lenders are more likely to located in zip codes with a greater number of African Americans and Hispanics (although the latter effect is not statistically significant). In addition, the number of people with a four-year degree or higher in a zip code are negatively related to the number of payday lenders. Income is negatively related to the number of payday lenders. Marriage and home ownership have a positive relationship. A military presence in the zip code has a negative effect but it is not statistically significant.

Oron (2006) examines factors that affect location decisions of payday lenders in Washington State also using zip-code-tabulation-area data. He looks at both the number of payday lenders and also the payday/bank branch ratio and finds that the importance of payday lender increases with the number of poor people and the number of African Americans in the community. He also finds some evidence that payday lenders locate around military populations.

Stegman and Farris (2003) examine the demand for payday lending in North Carolina using data collected from a telephone survey of 1501 low-income North Carolina families. They investigate two questions: how household characteristics affect whether they have used a payday lender, and how often a household uses payday lending. They find that African American households were significantly more likely to use a payday lender, although Hispanic households were less likely to use a payday lender. Of households that used payday lenders, race or ethnicity did not have a statistically significant effect on how often they were used. Surprisingly, high school dropouts were less likely to use payday lenders and low education did not seem to cause an increase in payday lending use. Households with impaired credit, measured by whether the household has bounced a check in the last five years, had worked with a credit counselor, or had been called by a collection agency, were more likely to use payday lenders and to use them more often. They did not find a direct relationship between income and payday lending use – households with incomes in the $15,000-20,000 range were less likely to use payday lending than households with either higher or lower incomes in the sample – but this result is limited because the sample excludes higher-income households.

The empirical results of the state-level studies suggest a number of factors that may (or may not) affect payday lending use. The next step is to see if the same results hold up at the national level. Graves and Peterson (2008) construct a national database of payday lending by cataloging the location of every payday lender and recording the totals by state. Using this data, Graves and Peterson (2008) show that there is a positive correlation between the number of payday lenders in a state and the fraction of the population that is Christian Evangelical. They do this by calculating

indexes of Christian Evangelicals and payday lending and then rank each state based on these indexes. They then test if the two rankings are correlated. Each index combines several different measures: the Christian Evangelical index combines three factors, the number of Evangelicals in the state and two measures of the state's Congressional delegation voting record on social and cultural issues. The payday lending index combines several measures of the number and density of lenders.

Because it is likely that a number of different factors may affect payday lending use, it is desirable to go beyond simple correlations and look at use in a multiple regression framework. This paper does so using the data listed in Graves and Peterson (2008). This paper differs from Graves and Peterson (2008) in three ways. First, it breaks the payday lending decision into two parts: whether a state allows payday lending at all, which is likely a function of the political environment of the state, and how many payday lending branches are located in each state. Second, Graves and Peterson (2008)'s measure of Christian Evangelicals includes both the number of Christian Evangelicals in the state and how Christian groups evaluate the voting record of the state's Congressional delegation. These are broken into two separate variables, one designed to capture the political attitudes of the state and the other the number of Christian Evangelicals. Finally, other variables are included in the regressions to determine their importance for the popularity of payday lending. By doing so, the paper also extends the results of Stegman and Farris (2003), Oran (2006) and Burkey and Simkins (2004) by examining the effect of income and race on payday lending using national data.

THE DATA

The dependant variables in this paper are the number of payday lenders in a state and whether or not the state allows payday lending. The number of payday lenders is measured as payday lending branches per 10,000 people (PDL10K). This data was taken from Graves and Peterson (2008, Table 1, page 46). Since the volume of payday loans in each state is not available, the number of per capita branches is used as proxy for the popularity of payday lending in each state. The data are summarized on Tables 2 and 3.

The independent variables test for the importance of various socioeconomic factors suggested by the literature. It is likely that households that are poor are more likely not to have access to other financial service provides and so are more likely to use payday lenders. The state poverty rate (Poverty) is used as a measure of this. The variable is calculated as the average of the poverty rate from 2004-2006 from the US Census. It is also likely that less-educated individuals would be more likely to use payday lending, perhaps because they are not aware of the interest rates charged by the payday lenders or of their other options. However, poverty and low education are highly correlated (correlation = 0.79), when using the percentage of the state population that did not graduate from high school as a measure of low education. This leads to severe problems of multicollinearity so both variables could not be included in the regression. PDL10K was regressed separately against poverty and education (results not reported) and the R^2 on the poverty regression was higher. Given that, the poverty rate, and not the education rate, is used in the regression.

TABLE 2.
DATA DESCRIPTIONS

Variable	Abbreviated Name	Description
Payday Lenders per 10,000 People	PDL10K	Number of payday lender locations per 10,000 people. Source: Graves and Peterson (2008).
Percent in Poverty	Poverty	Poverty Rate, 2004-2006. Source: US Census, Northeast-Midwest Institute.
Percent with Low Education		Percent of population that is not a high school graduate, for population 25 years and older, 2000. Source: US Census, Northeast-Midwest Institute.
Percent African American	Black	Percent of population that is African American. Source: US Census Bureau, 2006 Estimates.
Percent Hispanic	Hispanic	Percent of population that is Hispanic. Source: US Census Bureau, 2006 Estimates.
Percent Evangelical and Mormon	Evangelical	Percent of the state population that attends either an Evangelical or Mormon church. Source: Association of Statisticians of American Religious Bodies (2000)
Percent Vote for Bush	Bush	Percent of voters voting for Bush in the 2004 US Presidential election. Source: uselectionatlas.org.
Percent Rural	Rural	Percent of rural population, 2000. Source US Census, Northeast-Midwest institute.
Bank Branches per 10,000 people	Banks10k	Number of insured bank branches per 10,000 people. Source: FDIC 2006.

TABLE 3
SUMMARY STATISTICS

	Mean	Standard deviation	Min	Max
PDL10K	1.08	0.89	0	3.83
PDL10K[a]	1.38	0.77	0.13	3.83
Evangelical	0.17	0.14	0.00	0.68
Poverty	0.12	0.03	0.06	0.20
Black	0.10	0.10	0.00	0.37
Hispanic	0.09	0.10	0.01	0.44
Bush	0.53	0.08	0.37	0.72
Rural	0.28	0.15	0.06	0.62
Banks10k	3.62	1.08	1.95	6.95

[a]Including only states that allow payday lending.

Burley and Simpkins (2004), Oron (2006) and Stegman and Farris (2003) argue that there is evidence that payday lending may be more popular among African Americans, perhaps due to a reluctance to use traditional financial service providers. To test for this, the share of a state's population that was African American (Black) was added to the regression. The share of the state's population that was Hispanic (Hispanic) was also added to the regressions to see if there was a similar effect.

Graves and Peterson (2008) argue that religion plays an important role in the popularity of payday lenders. Their measure includes three different factors: the per capita density of Evangelical Christians and Mormons, a score assigned to Congressional delegations by Christian political actions groups and a measure of the Congressional voting record on social/cultural issues (Graves and Peterson, 2008, pages19-21, for details). In effect, this measure mixes the political and religious

attitudes of the state. Obviously, these two factors are related, but it is also possible that non-Evangelical politicians could share political views with Christian Evangelicals, and so it is preferable to separate these effects.

This paper simply uses the percentage of the population belonging to an Evangelical church as a measure of the Evangelical population (Evangelical). This data is collected by the Association of Statisticians of American Religious Bodies and reported by the Association of Religion Data Archives (2000). There are two separate issues related to how this data is collected. First, "traditionally African American churches" are excluded from this measure. Second a decision has to be made about whether to include the Mormon churches with the Evangelical Christian churches. Graves and Peterson (2008) argue that these churches share many of the same views, if not the same doctrines, and include the Mormon churches with their measure of Evangelicals. As a practical matter, it allows the Evangelical variable to capture Utah, which is a high-payday-lending-use state. Mormons are included with Evangelical in this paper which should bias the results in favor of the Christian Evangelical variable.

A separate measure is added to capture political beliefs since political attitudes might affect a state's willingness to regulate payday lending. The percentage of the state voting for Bush in the 2004 presidential election (Bush) is used as a measure of conservatism. This measure is positively correlated with the percentage of the population that is Evangelical Christian, although not high enough to preclude adding it to the regressions.

It may be that the popularity of payday lending would be affected by the number of competing financial institutions. In states where banks are less available, households would have fewer options and thus be more likely to use payday lenders. The FDIC provides a measure of the number of insured bank branches in each state. To put it on the same basis as payday lending branches, the measure is calculated as the number of branches per 10,000 people.

For a given level of payday lending use, rural states may require a greater number of payday lending branches to achieve the same volume of business, since they must be spread out. Alternatively, the lack of critical mass may discourage the development of the payday lending industry there. To test for this, the percentage of the state's population living in a rural area is added to the regression as a control.

WHY DO STATES BAN PAYDAY LENDING?

Why do some states allow payday lending while other states ban it? A number of factors could explain this. The populace of the states could have differing attitudes towards the regulation of banking. Laws regulating traditional banks have differed significantly across states in US history. States may also differ in whether their population is likely to use payday lending. State governments might be tempted to "protect" individuals against themselves if they felt payday lending would be popular. Alternatively, if the population was unlikely to use payday lending, then the cost of prohibiting it would be small.

The eleven states that ban payday lending are listed on Table 4. In practice, regulation of payday lending is more complicated than simply whether it is allowed or not. Typically, there are limits on interest rate charged, although in the case of

payday lenders, the relevant restriction is on the fee charged on the loan rather than on an annual interest rate. Graves and Peterson (2008) provides a state-by-state description of the regulations. This paper treats all states listed on Graves and Peterson (2008) Table 1 as allowing payday lending and all states excluded as not allowing payday lending. More recently, Ohio, Oregon and New Hampshire have moved to limit payday lending. The regressions of this paper were also rerun with those states moved to the excluded list, but little difference was found.

TABLE 4.
STATES THAT BAN
PAYDAY LENDING, 2007

Connecticut	New Jersey
Georgia	New York
Maine,	Pennsylvania
Maryland	Vermont
Massachusetts	West Virginia

To see whether common factors lead states to this decision, a probit regression was run which tied the legal status of payday lending to various socioeconomic factors. So that the signs of the coefficients correspond to those on subsequent regressions examining the popularity of payday lending, the dependent variable takes the value of 1 if the state allows payday lending and 0 if it does not. The results are reported on Table 5.

Column 1 of Table 5 shows the results when all potential independent variables are included in the regression. Because of potential problems with multicollinearity, it also may be helpful to look at a minimal specification with the statistically insignificant variables removed. To do this, the regressions were repeatedly estimated using a stepwise process - removing the variable with the lowest significance level at each round – until all variables were statistically significant at the 10 percent level or better. The results of the final regression are reported on Column 2 of Table 5.

Not surprisingly, politically conservative states, as measured by the percent voting for Bush in the 2004 Presidential election, are more likely to allow payday lending. Perhaps surprisingly, Evangelical states are also more likely to allow payday lending, even after controlling for political beliefs. Again, this is a bit of a puzzle. As Graves and Peterson (2008) argue, there is nothing in the religious beliefs that should imply a more *laissez faire* attitude towards bank regulation.

States with large percentages of their population being rural or African American are less likely to allow payday lending. So while Burley and Simpkins (2004), Oron (2006) and Stegman and Farris (2003) suggest that African Americans are above-average uses of payday lending, states with relatively large African American populations are also more likely to ban it. The fact that this variable is a predictor for banning payday lending may be surprising given the relatively large African American populations in the South, which has been relatively tolerant towards payday lending, but it illustrates the importance of controlling for other factors. On net, states with large African American populations but that are also less conservative and less Evangelical are more likely to ban payday lending.

TABLE 5
THE DECISION TO ALLOW PAYDAY LENDING

	(1) All variables	(2) Stepwise
Evangelical	8.64*	7.68*
	(4.58)	(3.97)
Poverty	-3.02	
	(12.00)	
Black	-9.64**	-9.15**
	(4.13)	(3.60)
Hispanic	-1.63	
	(4.60)	
Bush	12.76**	12.32**
	(5.98)	(5.88)
Rural	-6.25**	-5.71**
	(3.13)	(2.42)
Bank10k	-0.08	
	(0.41)	
R^2	0.45	0.41

Standard errors in parentheses. ***significance at the 1% level, **significance at the 5% level, *significance at the 10% level.

THE USE OF PAYDAY LENDING

Table 6 lists the results of regressions of the number of payday lenders on the various economic and demographic variables. These regressions only include states that allow payday lending. Column 1 reports the results for the full regressions. Again a stepwise procedure was used to reduce the number of independent variables. The last non-significant variable to be reduced was Evangelical, so Column 2 reports the results with Evangelical included and Column 3 reports the results with it excluded.

Not surprisingly, states with a higher percentage of poor people have a greater number of payday lenders. States with a higher percentage of African Americans tend to have more payday lenders, supporting the state specific evidence of Burley and Simpkins (2004), Oron (2006) and Stegman and Farris (2003). Interestingly, the percent of the state's population that is Hispanic is not significant, which agrees with Stegman and Farris (2003). The political attitude of the state is also significant, which is perhaps a bit surprising. While it might be thought that political beliefs might affect the willingness to allow a particular banking practice, it is not clear why it would affect the popularity.

Evangelical is not significant in the full specification (column 1) or in the minimal specification (column 2). Since the variables (with the exception of

Bank10k) are measured in percentages of population, the magnitudes are comparable across the variables. The coefficient on Evangelicals is not only not statistically significant, it is also quite small in magnitude. This suggests that the effect of Christian Evangelicals found in Graves and Peterson (2008) is likely proxying for other variables. The evangelical measure of Graves and Peterson (2008) was added back into the Column 3 regression of Table 6 and was found to be not significant (results not reported). In addition, the percent of the population voting for Bush lost statistical significance, suggesting that it was the political part of their measure of Christian Evangelicals that was the relevant component.

TABLE 6.
THE NUMBER OF PAYDAY LENDERS

	(1) All variables	(2) Stepwise (with Evangelical kept in)	(3) Stepwise
Evangelical	0.48 (0.91)	0.45 (0.83)	
Poverty	6.53 (5.24)	7.10* (3.74)	7.74** (3.52)
Black	3.34** (1.36)	3.43*** (1.14)	3.55*** (1.11)
Hispanic	0.08 (1.49)		
Bush	2.70* (1.59)	3.01** (1.32)	3.37*** (1.13)
Rural	0.65 (1.28)		
Bank10k	-0.03 (0.10)		
R^2	0.57	0.56	0.56
Adj R^2	0.47	0.51	0.52

Standard errors in parentheses. ***significance at the 1% level, **significance at the 5% level, *significance at the 10% level.

Finally, whether a state is rural or not does not affect the number of payday lenders, suggesting that concentration of population does not significantly affect the potential profitability of each individual branch. Competition from more traditional banks (Bank10k) also does not seem to have an effect.

STATES THAT BAN PAYDAY LENDING: WOULD PAYDAY LENDING HAVE BEEN POPULAR?

Would states that ban payday lending be above- or below-average users of payday lending? It could be argued that either result is reasonable. Populations that were inclined to be heavy uses of payday lending might motivate state legislators to

be more aggressive in regulating the industry since more is at stake. On the other hand, states that would not be heavy users of payday lending might be inclined to restrict them since the cost of doing so would be small.

The regression equation for the number of payday locations (column 3 of Table 6, where the unreported constant equals -1.753) was used to forecast the number of payday lenders for each state where payday lending is currently prohibited. The results are reported on Table 7. For comparison purposes, the mean and median number of payday lenders (per 10,000 people) for states that allow payday lending are listed at the bottom of the table. Five states would have had a greater number of lenders than average while seven would have had fewer, so it seems that demand for payday lending is not a factor on whether it is allowed or not. To further test this, the predicted number of payday lenders (for all states) was also added back into the probit regression testing whether a state allows payday lending (results not reported) but was not found to be statistically significant

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TABLE 7.
STATES THAT BAN PAYDAY LENDING:
HOW POPULAR WOULD PAYDAY LENDING BE?

State	Predicted PDL10K[a]
Connecticut	0.80
Georgia	2.29
Maine	0.68
Maryland	1.46
Massachusetts	0.55
New Jersey	0.92
New York	1.33
North Carolina	1.97
Pennsylvania	1.15
Vermont	0.18
West Virginia	1.41
Mean for states with payday lenders.	1.38
Median for states with payday lenders.	1.22

[a]The variable is the number of payday lenders per 10,000 people. The predicted number of payday lenders in each state is estimated from the regression reported on Column 3 of Table 6.

CONCLUSION

It is no surprise that poverty leads to the use of payday lending. What is surprising is the importance of non-economic factors, such as religion, politics and race. Politics and religion are likely to affect individuals' attitudes towards government regulation and so indirectly how states choose to regulate financial intermediaries, but why politics should affect the *use* of payday lending is less clear. Likely it is proxying for other factors that affect to payday lending use, but determining these factors remains a project for future research.

Of particular significance is the finding that payday lending is relatively popular with the African-Americans even after controlling for poverty and other

factors. This influence of race also has public policy implications. While the policy issue for payday lending has tended to be whether to allow it or not, an alternate approach would be to provide lower-cost alternatives so that individuals do not have to rely on payday lenders. And example of this is the North Carolina State Employee's Credit Union which offers small short-term loans to its members at relatively low interest rates (Stegman 2007). Financial service providers who take this route may want to pay particular attention to African American communities, along with other communities with demographic characteristics indicating the potential for greater reliance on payday lenders.

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